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Media markets and municipal politics: how territorial congruence increases political participation at the local level

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Abstract:

This paper focuses on the effects of the local media market for turnout in municipal elections in Switzerland. Building on the information model of voter turnout, we posit that the exposure of citizens to locally relevant news is important for their probability to participate in local elections. Empirically, we focus on aggregate levels of turnout in recent local elections in 408 metropolitan municipalities in Switzerland. We find that newspaper audience in a municipality, as well as the congruence of newspaper markets with municipal territories both have positive effects on levels of turnout in municipal elections. The paper thereby contributes to an emerging literature showing that the role of the media is important for political participation at the local level, but also beyond.

1. Introduction¹

Political participation is the fundament of democracy. Of course, political participation covers a much broader range of activities than the mere act of voting in elections. Nevertheless, voting in elections can be seen as a useful proxy for political participation. It is not only a fundamental political act performed by the citizens in democracies. It is also one of the most reliable and often readily available empirical indicators of political behavior. Studying the determinants of electoral participation is thus one of the classics of political science.

Similarly, the explanation of turnout in local elections is a familiar topic in the fields of urban politics and local government studies. In these fields, an important strand of research has focused on the question of how contextual characteristics of places of residence influence citizen's political behavior in addition to individual traits such as gender, age, class or education. In the context of US metropolitan areas, Gainsborough's (2005) study finds differences in electoral behaviour between city and suburban residents that are related to specifics of the spatial context in which voters live, independent of their individual characteristics. Working on a Canadian metropolitan context, Walks (2006) finds that the city-suburban polarization of citizens' political views is not only related to effects of self-selection of supporters of different parties to various places (leftist citizens into the inner city and right-wing citizens into suburban neighbourhoods), but also to local experience and the modes of consumption (basically: public or private) prevailing in the neighbourhood citizens live in. In a study using individual level data from Germany, the Netherlands and Switzerland, Ströbele (2012) finds similar evidence for contextual effects of places of residence on citizens' political leanings, with building density and the availability of public services being strongly associated with preferences for left parties. Similar effects have also been found by Scheuss (2013) in his study on metropolitan areas in Switzerland, as well as by Sellers et al. (2013b) in their study on the metropolitan sources of political behaviour in eleven OECD countries.

While this recent work has focused on the contextual influences on political preferences and partisanship, the study of contextual determinants of political participation has a longer tradition. For instance, the influence of jurisdiction size on political participation is, again, a classic (see Dahl 1967; Dahl and Tufte 1973). Findings normally are that electoral turnout decreases with the size of the jurisdiction: "population size has a statistically significant nega-

¹ Research for this paper was conducted in the framework of the National Centre for Competence in Research *Challenges to Democracy in the 21st Century* at the University of Zurich, funded by the Swiss National Science Foundation.

tive effect on turnout” (Geys 2006: 643). Causal mechanisms put forward to explain this relationship normally draw on Downs’ “calculus-of-voting model” (Downs 1957): as the marginal effect of an individual vote on the election outcome is related to jurisdiction size, the expected utility from voting is smaller in large jurisdictions and abstention becomes more likely. However, Oliver (2000) has rightly pointed out that this explanation is too simplistic. Based on Verba et al.’s (1995) so-called resources model of participation, he argues that the individual decision of participating in an election is “a function of individual resources, interest, and mobilization; people are more likely to participate if they have skills and knowledge, if they are more psychologically engaged, or if they are recruited by others” (Oliver 2000: 362). Each of these factors, Oliver argues, varies with a person’s social environment. In order to examine contextual determinants of political participation, we need to account for how individual resources, interest and mobilization are shaped by the contextual settings in which citizens evolve. This approach allows for more complex hypotheses of the contextual effects on political participation. Oliver (2000: 370-1), for instance, concludes that the causal roots of the negative relationship between city size and political participation are lower levels of political interest, as well as lower levels of political mobilization by neighbours and acquaintances in larger places - both owing to the anonymity in these settings as compared to smaller municipalities. The findings of Sellers et al.’s (2013b) ecological analysis of turnout in local elections in metropolitan municipalities of eleven countries points to similar conclusions. They found that, in many countries, residential instability and commuting, as well as socio-economic heterogeneity and low levels of party competition at the municipal level significantly depress local electoral turnout (Sellers et al. 2013a: 440). All these factors can be seen to indicate higher levels of social and civic complexity that impede the emergence of political interest and make efforts of political mobilization more demanding.

The theoretical models used to explain contextual effects on political behaviour at the local level have thus become more differentiated and a variety of causal relationships is now generally acknowledged beyond the - too simplistic - argument of municipal size (see Kelleher and Lowery 2004; Kelleher and Lowery 2008). However, one aspect is usually paid only little attention in these studies: the effect of the mass media. This is all the more astonishing as much of the discussion on the declining levels of political participation in many Western democracies has focused on the role of the media, as well as the changes in the media system.

2. Political participation, information and the media

The effect of the mass media on political participation is evident if we posit that the availability of information is important for a citizens' decision to participate or not. This is the main argument of the so-called information model of voter turnout (Matsusaka 1995), showing how information leads some citizens to participate and others to abstain. The upshot of the information model is that "even if people believe it is their duty to vote, rational citizens abstain if they feel unable to evaluate the choices. Holding constant the basic inclination to vote, then, variations in turnout can be explained by variations of how informed citizens are" (Matsusaka 1995: 93). While one need not share the utilitarian underpinnings of the information model of voting turnout - which is, indeed, an extension of the rational voter model - it is obviously plausible to consider that citizens who are better informed are more likely to vote. This general insight can easily be combined with the more complex resource model of political participation (Verba et al. 1995) in which the combination of resources, political interest and mobilization is seen to determine citizens' political participation. Indeed, information can be assumed important to all three factors: when information is readily available, civic skills can play out better, political interest emerges more easily, and mobilization efforts are more effective.

Information, however, does not appear from nowhere. In modern democracies, the mass media play a crucial role in informing citizens about politics and policies, besides direct campaigning by political actors. Exposure to mass media with a lot of political content has been shown to increase citizens' political knowledge and this, in turn, to increase political participation (de Vreese and Boomngaarden 2006). When citizens are provided politically relevant information by the news media, they are more likely to participate politically and vote in elections. This general argument is highly relevant for the topic of this paper: the contextual effects of places of residence on citizen participation. Indeed, the news media market is obviously not the same everywhere. In some regions, citizens might have a broader choice of different news media outlets than in others, or some regions might be better covered by news media reports than others. Hence, the presence of news media or the relevance of political information provided by these news media is likely to vary across electoral districts. And this can be assumed to affect political participation therein, as "news media that present information on political issues of relevance to the voters are likely to increase the level of information among the electorate and, hence, lead to a rising turnout" (Baekgaard et al. 2014: 521).

So far, the relationship between the news media market and political participation across electoral districts has been investigated rather recently and very few studies are available. Their findings, however, corroborate the general assumption that the structure of the news media market, as well as the presence of politically relevant media content in an electoral district influences citizens' political participation. In their study on the effect of local television markets on turnout in the US, Althaus and Trautmann (2008) investigate the effect of local television markets on turnout in national elections at the level of county electoral precincts. They find a quite straightforward negative effect: "People living in larger television markets are less likely to vote, especially in midterm elections, even after controlling for a range of factors known to predict turnout" (Althaus and Trautman 2008: 844). They explain this finding by the tendency of TV stations in larger markets to give disproportionate attention to higher-level races involving statewide or national offices, and expose voters much less to lower-ticket races in which they are eligible to vote. The importance of locally relevant news for electoral turnout at that level is also confirmed by Oberholzer-Gee and Walfogel (2009) in their study on television markets in US metropolitan areas. They show that the availability of Spanish-language local television news in a given metropolitan area raises electoral turnout among Hispanics there by more than four percentage points, implying that news in Spanish caused about a fifth of Spanish-language news viewers to start voting. Looking at effects of the press, an examination of electoral turnout over time in the US state of Kentucky finds that the closure of one of the two local newspapers in 2007 had a lasting negative effect on turnout in municipal elections (Schulhofer-Wohl and Garrido 2013). Studies conducted in the US thus point out the importance of the news media market for political participation. Voters living in electoral districts with news media that provide information on political issues relevant to this district seem to be better informed and therefore more likely to turn out on election day. This proposition was also confirmed by Baekgaard et al. (2014) in one of the rare studies conducted outside the US context, focusing on the relationship between the news media market and electoral turnout in municipalities in Denmark. Combining data from a survey of local councillors and official data on turnout in local elections, they find that turnout is higher in municipalities where the local newspapers are viewed to provide relevant political information.

These studies all point to the structure of the news media market as an important contextual determinant of political participation in a given electoral district. At the local level, the press seems to be particularly relevant. The shift away from local newspapers to supra-local television stations with large markets areas leads to a de-localization of news coverage, resulting in

reduced coverage of locally relevant political issues and, thereby, to lower levels of turnout at the local level. This is why, in the study presented here, we focus on the question of how the local newspaper market affects turnout in local elections.

2.1 Local elections and the media market in Swiss metropolitan municipalities

More particularly, we look at the relationship between the local newspaper market and electoral turnout in local elections in municipalities located in six large metropolitan areas in Switzerland. Switzerland is a federalist country and elected representative institutions exist at all three state levels: the federation, the 26 cantons (the federate states), as well as the roughly 2,500 municipalities. For the analysis of electoral turnout, the Swiss case is significant because electoral turnout is one of the lowest among Western democracies. As elsewhere, turnout in national elections has declined throughout the 20th century, but it went down to record lows in Switzerland, particularly since the 1970s. The 1995 national election has seen the lowest turnout ever registered: only 42.2 percent of the eligible citizens cast their ballot. Since then, national election turnout has slightly increased again, but still oscillates around an average of 45 percent - which is roughly 25 percentage points lower than in other developed democracies. Scholars have explained extremely low levels of electoral turnout in Switzerland by a number of factors. On the one hand, belated introduction of female suffrage (only as late as 1971) is the cause for above average abstention rates in older women. On the other hand, specific features of the Swiss political system reduce the salience of elections (see Franklin 2004; Lutz and Selb 2007). Switzerland is the prototype of a consensus democracy (Lijphart 2012) and electoral outcomes only have a limited influence on the partisan composition of the large coalition governments. In addition, direct democracy is extensive at all three state levels: parliament bills can be challenged in referenda and direct legislation is possible via so-called popular initiatives. Popular votes on policy issues are frequent and, in comparison to other Western democracies (Bochsler and Kriesi 2013), representative institutions have only limited control over policies.

With respect to local elections, it has been argued that due to high municipal autonomy, “participating in Swiss local elections is, less than elsewhere, an election of the ‘second order’” (Ladner and Millner 1999: 237). Indeed, various existing comparative typologies (see Page and Goldsmith 1987; Hesse and Sharpe 1991; Sellers and Lidstrom 2007; Goldsmith and Page 2010) qualify Switzerland’s local government system as one where local autonomy is high, both in terms of legal competences and financial resources, and where democratic self-governance of local communities is substantial. Political participation at the local level thus

can be viewed as an important instrument of citizen control over policy. The fact that turnout in local elections is often as high or even higher than electoral turnout in national elections at the municipal level emphasises the salience of local elections in the Swiss context. Indeed, Caramani (2004) has found a rather low degree of nationalization in Swiss politics, and Sellers et al. have qualified Switzerland as one of the rare cases of a “localised political culture” (2013a: 426).

Existing scholarly work has shown that turnout in local elections in Switzerland is strongly affected by municipal context, in addition to socio-demographic features of the electorate (see Ladner and Millner 1999; Bühlmann 2006; Zingg and Benz 2003; Kübler et al. 2013). The ‘size effect’ is largely confirmed for the Swiss case: local electoral turnout decreases with the population size of a municipality. In addition, the voting system was found to play a role, with proportional rule having a generally positive effect on turnout. Some studies also found a positive effect of electoral competition (Ladner and Millner 1999). More recently, research on local elections in urban municipalities found that transformations due to metropolitan growth - new housing as well as high shares of out-commuters - depress turnout in municipal elections (Kübler et al. 2013).

However, the existing studies on turnout level in Swiss municipal elections still leave a large proportion of the variance unexplained. And none of them has, as yet, examined the relationships between turnout in local elections and the nature of the media market in Swiss municipalities. In this paper, we therefore aim to explore this relationship and to assess the question to what extent the focus on media-related effects can improve our understanding of the contextual determinants of electoral turnout in Switzerland. More precisely, we will focus on the structure of the *newspaper market* in metropolitan municipalities and its influence on turnout in municipal elections. A focus on newspapers - rather than on electronic broadcasting - is relevant for two reasons. On the one hand, the Swiss media system is characterised by the outstanding role of the press. This is due not only to a strong tradition of political parallelism of the press - i.e. proximity of newspapers to political parties - but also to the belated liberalisation of electronic media in the 1980s (radio) and 1990s (TV) where public broadcasters are still dominant. Newspapers continue to be widely read: newspaper audience share is 77 percent in Switzerland, which is one of the highest in Europe (Marcinkowski et al. 2014: 439). In this sense, the situation in Switzerland is quite typical for the so-called democratic-corporatist type of media system to which the country belongs according to Hallin and Mancini (2004). On the other hand, the focus on newspaper markets is relevant as this is the segment of the

media system in Switzerland that is currently under heavy pressure for change. Competition has increased due to the introduction of free dailies (e.g. commuter papers) as well as due to the shift of media users to online-providers. As a consequence, traditional newspapers have seen their financial bases eroding and the traditionally rather high diversity of the Swiss press market has seen increased concentration, especially in the regional press (Hallin and Mancini 2004: 440; Marcinkowski et al. 2014). In order to assess the effects of these ongoing transformations on democratic politics in Switzerland, it is therefore crucial to gain a better understanding on the role of newspaper markets for political participation at the local level.

3. *Method and data*

In order to do so, this study implements a cross-sectional design focusing on 408 municipalities located in six major Swiss metropolitan area Table 1. They total a population of nearly three million, which corresponds to roughly half of the country's urban population. Of these six metropolitan areas, three are located in the German-speaking region (Zurich, Basel, Lucerne), two in the French-speaking region (Geneva and Lausanne), and one in the Italian-speaking region (Lugano). They thus represent the whole variety of cultural contexts in Switzerland.

3.1 Dependent variable: turnout in elections of the municipal executive

The variable of interest in this study is the level of citizens' political participation at the municipal level. In Switzerland, there is a variety of institutionalised opportunities for citizens to participate in municipal politics and policy. Switzerland is a highly decentralised federation (Braun 2003) and municipalities are subject to legislation by the cantons. As a consequence, the political organisation of municipalities can vary quite considerably across cantons and sometimes even across municipalities within cantons. In terms of political organisation, all Swiss municipalities have an executive branch of government composed of a mayor plus a number of aldermen which are all directly elected by the citizens.² Both majority and proportional rule can be used for the election of the municipal government, depending on cantons.³ The legislative branch of municipal government is organised according to two different models. In the first model, the legislative functions are assumed by a citizen assembly convened in regular intervals, and at least twice a year. In the second model, the legislative function is assumed by a municipal parliament which is also directly elected according to proportional rule.

² In one canton - Neuchâtel - the municipalities are free to chose between direct election of the government by the citizens, or indirect election of the government by the municipal parliament (which is itself directly elected). However, none of the municipalities under scrutiny in this study is located in the canton of Neuchâtel.

³ Some cantons prescribe the voting system for munipical govenments (either majority rule or proportional rule), others leave the choice of the voting system open to municipalities.

While the citizen-assembly model is the most widespread, the parliament-model is found mostly in the French and Italian speaking part of the country, as well as in the larger cities of the German speaking region. In addition to the institutions of representative democracy (government and parliament where applicable), instruments of direct democracy are rather extensive in Swiss municipalities. Decisions by the government, the parliament or the citizen assembly can be challenged in referendums, and citizens have the possibilities to suggest direct legislation via citizens' initiatives. The specific rules and design of direct democracy at the local level, however, vary considerably across the country. Culture was found to be an important explanatory factor for this variation, as access to direct democratic decision-making is easier in the German-speaking parts of the country, and more restricted in the French and Italian speaking parts (see Joye et al. 1995; Bützer 2007).

The possibilities for political participation at the municipal level are thus extensive for citizens in Switzerland. This study, however, focuses exclusively on participation in the elections of local governments, i.e. the municipal executive. There are two reasons for this. On the one hand, the elections of the municipal executive is the only instance of local political participation that invariably exists in all Swiss municipalities - if we leave aside the variation in electoral systems. On the other hand, the municipal executive clearly is the most powerful institution in the Swiss local government system and has a predominant influence on local policy processes. Elections to the municipal executive can thus plausibly be regarded as the most significant moment of local political participation in Switzerland.

Slightly different operational measures for electoral turnout can be found in the literature (Geys 2006). In this study, we use official figures, i.e. turnout as reported by the authorities after the election of the municipal government. Registration of citizens as voters is automatic throughout Switzerland, and electoral turnout is therefore defined as the percentage of eligible citizens who have cast a vote in the election. While official figures on electoral turnout in Swiss municipal elections can be considered as extremely valid, the problem is that they are not centrally stored. In addition, municipal elections are held in different years across cantons - and sometimes even across municipalities within cantons. Hence, considerable efforts were necessary to compile the data on electoral turnout from cantonal oversight authorities and, in some cantons, directly from the municipalities. We aimed at obtaining turnout data for municipal elections that have taken place in 2012 or, if there were none in that year, the most recent elections before 2012. All in all, turnout figures could be obtained for 392 municipalities, corresponding to roughly 96 percent of the total (Table 3).

3.2 Independent variables

The general hypothesis explored in this paper is that the more citizens in a municipality are exposed to relevant political information provided by newspapers, the higher the turnout in municipal elections in that municipality. However, as Baekgaard (2014) rightly note in their study on Danish municipalities, obtaining valid data on the relevance of news media coverage for local politics would require enormous resources, especially if the number of municipalities under scrutiny is high (such as in our case). Rather than relying on survey data on the perception of media content (as did Baekgaard et al. 2014), we use data on structural aspects of the local newspaper market, which we assume to be related to media content. More particularly, we use three variables: newspaper audience, media diversity and territorial congruence.

We use *newspaper audience* in a municipality as a measure for the size of the local media market. Indeed, the larger the number of newspaper readers in a municipality, the larger the number of citizens who are exposed to political information contained in these newspapers. Newspaper audience in a municipality is operationalized as the share of newspaper readers in the municipal population. However, the size of the newspaper market in a municipality can not, as such, tell us anything about the relevance of the political information contained in the newspapers that are read in this municipality. Additional variables are needed to account for local relevance of newspaper content. The identification of these variables is based on the assumption that, due to limited space, news media organisations have to be highly selective in the content they publish. The selection of topics and events that are reported upon follows a number of criteria - known as “media logic” (Altheide and Snow 1979). Basically, media organisations seek to publish news which they assume are of interest to their readers, not least with the goal to maximise their audience and thus their commercial benefits. Moreover, thanks to market research, newspaper organisations can be considered as extremely well informed about the market which they tap into. With this as background, we posit that two elements influence publishing locally relevant news: the diversity of newspapers, as well as the territorial congruence of a municipal newspaper market.

On the one hand, *newspaper diversity* is operationalised as the number of newspapers per newspaper readers in a given municipality. This is taken as a measure for the competition between newspaper outlets on the municipal newspaper market. We assume that intense competition between newspapers in a local market provides newspaper organisations with strong incentives to produce locally relevant information in order not to lose readers to their competitors. Hence, we hypothesise that there is a positive relationship between newspaper diversity

in a municipality and levels of turnout in municipal elections - a relationship that was already corroborated by Schulhofer-Wohl and Garrido (2013) in their study on the Cincinnati case, quoted above.

On the other hand, *territorial congruence of the local newspaper market* was used to measure the importance of a municipality for news organisations whose outlets are read in this municipality, and thus the likelihood of localized news coverage. This in turn is expected to raise people's awareness of local politics, knowledge of their representatives' actions, and, in turn, increase their probability of voting. More precisely, the congruence of local media markets and municipal territories was operationalized following the initial work by Snyder and Strömberg (2010) on the congruence of newspaper markets and congressional districts in the US. Congruence of the newspaper market in a municipality 'm' is defined as the circulation-weighted average of readership for newspapers 'p' read in this municipality:

$$congruence_m = \sum_{p=1}^P reader\ share_{pM} * market\ share_{pm}$$

The product of reader share and market share of a newspaper 'p' in the municipality 'm' represents the importance of a municipality in a metropolitan region for newspaper 'p' and thus represents a point of reference for the degree of localized content of this newspaper. Consequently, the sum of these values for all newspapers read in a municipality is the congruence value that ranges between 0 (no congruence) and 1 (full congruence). It is seen to measure the degree to which the newspaper market within a municipality is localized, that is, the extent to which content relevant to the municipality is expected to be provided.⁴ In their study on US congressional districts, Snyder and Strömberg (2010) found citizens living in districts with a highly congruent newspaper market to be better informed about their congressmen. Drawing on this insight, we hypothesise that in municipalities where congruence of the newspaper market is high, electoral turnout is higher. Indeed, newspapers in congruent markets can be assumed to contain more locally relevant news, which leads to citizens being better informed about local politics and therefore increases their likeliness to vote in local elections.

⁴ Note that some corrections needed to be made to this general formula. In particular, the congruence measure was found to be influenced by small non-local newspapers read by only very few people in a given municipality (e.g. a family from a Genevan suburb who moved to Zurich and, in order to keep informed about things that happen in Geneva, has a subscription to the local newspaper from its former suburb of residence in Geneva). In order to limit such distortions, the reader share pM is calculated as the share of the overall readership α of newspaper p for which the readership of p in the metropolitan area M accounts:

$$reader\ share_{pM} = \frac{\alpha_{pM}}{\alpha_p}$$

In addition, we need to acknowledge the fact that the effect of both of these measures for the local relevance of newspaper content (diversity and congruence) is mediated by the size of the local newspaper market. Logically, compared to non-readers, newspaper readers are more exposed to newspaper content. In municipalities with high proportions of newspaper readers, these effects will most likely be stronger. Hence, interaction terms (between newspaper audience and newspaper diversity, as well as congruence) will be used.

Data on the local newspaper markets in the municipalities under scrutiny was compiled from the 2010 study on the readership of newspapers in Switzerland - the so-called MACH Basic Study (WEMF 2010). Data was available for 384 out of the 408 municipalities under scrutiny.

3.3 Control variables

Drawing on the insights from existing work on municipal election turnout in Switzerland, a number of control variables known to influence electoral turnout at the municipal level will also be considered. More precisely, the (logged) population size of a municipality will be included, as several previous studies have shown a significant negative impact of population size on local electoral turnout. Mean taxable income of residents in a municipality will also be considered, as a proxy for socio-economic status known to influence the likeliness to vote more generally. The proportion of older residents (i.e. above 65 years) will be accounted for, as political participation in Switzerland is known to increase with age. In terms of institutional differences between municipalities, we will control for the electoral rule applied in municipal elections; proportional rule - as opposed to majority rule - was indeed found to have a positive impact on municipal election turnout (Ladner and Millner 1999). Finally, culture will need to be accounted for, especially the distinctive context of the Italian speaking part of the country, where levels of electoral turnout at the local levels have been found to be high as a consequence of widespread party clientelism (Mazzoleni 1999).

4. Findings

4.1 Socio-demographic aspects and municipal media market

As can easily be seen from Table 1, the six metropolitan areas under scrutiny are quite typical for the rather high degree of institutional fragmentation of the Swiss local government system more generally (Hoffmann-Martinot and Sellers 2005). Metropolitan areas cover a large number of different municipal jurisdictions, and the average size of municipalities is rather small. There is some variation between the metropolitan areas under scrutiny: municipalities are particularly small in the Lugano metropolitan area, located in the Italian speaking part. While the

proportion of older residents seems to be rather constant, average wealth of residents at the municipal level varies quite substantially both within and across metropolitan areas.

Table 1: Socio-demographic structure of metropolitan municipalities in study (data for 2010)

Metropolitan area	Population	Municipalities	Population of municipalities		Percent over 65 years		Tax income, p.c. (in CHF, 2008)	
Name	Overall	Overall	Mean	s.d.	Mean	s.d.	Mean	s.d.
Zurich	1,181,062	130	9,085	32,559	14	3.2	2,025	2,170
Geneva*	527,764	74	7,131	22,247	13	2.9	3,458	2,204
Basel*	501,285	74	6,774	19,606	16	3.2	1,176	603
Lausanne	332,681	67	4,965	15,662	13	3.3	1,798	1,501
Lucerne	209,224	16	13,076	18,947	13	4.7	1,547	1,600
Lugano	130,588	47	2,778	8,033	17	2.6	1,506	919
Overall	2,882,604	408	7,065	23,656	14	3.5	2,023	1,890

*excluding municipalities located in neighbouring countries of cross-border metropolitan areas

Source: Swiss Statistical Office, 2010 population census data; Swiss Federal Finance Administration

Turning to the structures of the municipal newspaper markets, Table 2 shows that these differ substantially between the metropolitan areas under scrutiny. Newspaper audience is high in Basel and Lucerne, and low in Lugano, Lausanne and Geneva, with Zurich somewhere in between. Newspaper diversity is also different across metropolitan areas: it is highest in Lugano, and lowest in Lucerne and Basel, with Lausanne, Geneva and Zurich in the middle. Newspaper diversity also varies significantly within metropolitan areas: it is lower in core cities than

Table 2: Newspaper markets in Swiss metropolitan municipalities (data for 2010)

Metropolitan area	Municipalities	Municipalities with data	Newspaper audience		Newspaper diversity		Congruence of newspaper market	
Name	Overall	N	Mean	s.d.	Mean	s.d.	Mean	s.d.
Zurich	130	126	0.62	0.24	0.019	0.014	0.55	0.16
Geneva	74	68	0.47	0.16	0.021	0.017	0.60	0.12
Basel	74	73	1.05	0.34	0.013	0.010	0.71	0.09
Lausanne	67	59	0.41	0.20	0.031	0.021	0.33	0.05
Lucerne	16	15	0.93	0.23	0.008	0.005	0.47	0.11
Lugano	47	43	0.37	0.12	0.053	0.037	0.42	0.06
Overall	408	384	0.63	0.33	0.024	0.022	0.54	0.16

Source: WEMF AG, 2010 MACH Basic study.

in the suburbs. Newspaper diversity is negatively (but weakly) correlated to municipal population size ($r=-0.197^{***}$): newspaper diversity is higher in smaller municipalities. Looking at congruence of the municipal newspaper market, we also find significant differences between

metropolitan areas. Territorial congruence of municipal media markets is highest in Basel, followed by Geneva and Zurich, Lucerne and Lausanne. Interestingly newspaper audience is negatively correlated to newspaper diversity ($r = -0.428^{**}$), as well as to congruence ($r = -0.353^{**}$). The smaller media markets also seem to be those that are more diverse and territorially congruent with municipal boundaries.

4.2 Explaining turnout levels in municipal elections

Considering the low levels of electoral turnout in Swiss national elections, the overall average level of turnout in municipal elections in the six metropolitan areas (43.9%) seems to be relatively high (Table 3). The overall figure, however, hides substantial variations between the metropolitan areas, as well as between the municipalities within these. On the one hand, Lugano clearly stands out with the highest levels of municipal turnout, which can be explained with the specific cultural context of Italian-speaking Switzerland, with the prevalence of proportional rule for municipal elections, as well as with the relatively small size of the municipalities in the Lugano metropolitan area. Zurich and Lucerne, on the other hand, stand out with very low levels of municipal election turnout. The remaining three metropolitan areas are located somewhere in between these two extremes.

Table 3: Turnout in municipal elections (data for 2012 or near)

Metropolitan area	Municipalities (overall)	Munic. with data	Munic. with MR	Electoral turnout (voters in percent of eligible citizens)			
Name	N	N	Percent	Mean	Min	Max	s.d.
Zurich	130	124	100	37.1	19.5	71.2	9.3
Geneva	74	74	100	46.4	30.3	66.0	8.2
Basel	74	67	73	41.7	21.6	74.6	9.6
Lausanne	67	61	100	41.8	22.9	63.9	9.1
Lucerne	16	15	100	38.9	23.2	58.1	8.5
Lugano	47	45	0	58.9	44.4	71.3	6.7
Overall	408	392	84	42.6	19.5	74.6	10.8

Source: cantonal oversight authorities, municipalities

Table 4 shows the bivariate correlations of turnout levels with the independent and control variables. For the control variables, the correlations are as expected: levels of municipal electoral turnout are negatively correlated with municipal population size, and positively correlated with resident wealth, as well as with large proportions of residents above 65 years of age. The results for the independent variables shows that turnout in municipal elections is also significantly correlated to the structure of the media market - albeit not in the expected ways.

Contrary to our hypothesis, newspaper audience is negatively correlated with turnout levels. Congruence is negatively correlated with turnout in municipal elections - but only at a significance level of $p < 0.1$. Only newspaper diversity is positively correlated with turnout. However, these results might be influenced by confounding variables, and do not take interaction effects into account.

Table 4: Municipal turnout levels: bivariate correlations (Pearson coefficients)

	Turnout
Newspaper audience	-0.169**
Newspaper diversity	0.457***
Congruence	-0.103 ⁺
Municipal population	-0.141**
Mean tax income	0.150**
Proportion old residents	0.136**

Levels of significance (two-tailed): ⁺ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

This is indeed suggested by the results of the multivariate regression analysis presented in Table 5. Three regression models were estimated. In model 1, only structural and socio-demographic predictors are included.⁵ The results show the expected effects: high levels of electoral turnout are explained by the location of a municipality in the Italian-speaking part of the country, by small municipal population, by high levels of resident wealth, as well as by large proportions of older residents found in a municipality. The adjusted r^2 measure shows that this first model explains 46.2 percent of the observed variance - which is quite substantial.

The second model, besides the control dummy for location of a municipality in the Italian speaking part of the country, only uses the three independent variables used to qualify the nature of the municipal newspaper market. The results show the expected effects. First, for the size of the local media market: The larger the newspaper audience in a municipality, the higher is the level of turnout in municipal elections there. Second, we also see the expected effects of the two predictors used to measure the local relevance of media content. Indeed, both newspaper diversity and congruence at the municipal level are positively associated with levels of electoral turnout in municipal elections. (However, newspaper diversity is only significant at $p < 0.1$.) In addition, the two interaction terms came out significant, thereby confirming the idea that the effects of local newspaper market structure on political participation are me-

⁵ Separate tests showed that the effect of proportional rule is explained away by the dummy controlling for location in the Italian-speaking region of the country. Proportional rule was thus dropped from all the models.

diated by the size of this market relatively to the municipal population. The proportion of the variance explained by this ‘media market-only’ model is also quite remarkable (adjusted $r^2=36.8$ percent).

Table 5: Predictors of turnout in municipal elections (OLS regression; unstandardized coefficients, standard errors in parentheses)

	Model 1 Composition and structure	Model 2 Newspaper market	Model 3 Full
<i>Constant</i>	68.067*** (3.020)	23.618*** (4.353)	58.424*** (6.923)
Italian-speaking (dummy)	14.373*** (1.543)	15.129*** (1.714)	14.292*** (1.739)
Municipal population (logged)	-4.246*** (0.380)		-4.562*** (0.642)
Mean tax income	0.001*** (0.00)		0.001* (0.000)
Proportion of residents over 65	0.382** (0.133)		0.571*** (0.151)
Newspaper audience		13.411* (6.794)	12.438+ (6.372)
Newspaper diversity		111.300+ (60.197)	30.727 (56.434)
Newspaper congruence		22.493** (6.496)	21.632*** (6.130)
Interaction term 1 (<i>audience * diversity</i>)		278.088* (126.129)	-122.083 (130.797)
Interaction term 2 (<i>audience * congruence</i>)		-24.211** (9.232)	-24.375** (8.818)
Adjusted R2	0.462	0.368	0.472
Number of observations	374	351	350

Levels of significance + $p < 0.1$ * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Finally, the third model uses the independent variables of interest together with the control variables. It shows the robustness of structural and socio-demographic determinants of electoral turnout, even if newspaper market variables are taken into account. The integration of structural and socio-demographic controls also seem to lessen the influence of some of the previously noted effects of newspaper market structure. In particular, newspaper diversity no longer has a significant effect on turnout levels, and the positive effect of newspaper audience is statistically only significant at the 10 percent level. Since newspaper audience, as well as newspaper diversity are higher in smaller municipalities, their influence is explained away by the inclusion of municipal population in the model. However, the effect of newspaper congru-

ence on levels of turnout in a municipality remains significant at a level of $p < 0.001$. Congruence, as a measure for the degree of localization of newspapers read in a municipality, thus has a strong positive effect on turnout in municipal elections. The significance of the second interaction term shows that the effect of congruence varies with newspaper audience in a municipality - although it is difficult to exactly determine the pattern of this variation. The third model also shows that a (slightly) larger proportion of the observed variance can be explained by integrating variables measuring the core features of the municipal newspaper market, as compared with structural and socio-demographic determinants only.⁶

5. Discussion

Turnout in municipal elections in Switzerland is rather low in international comparison. Data collected for the analysis in this paper has shown that municipal turnout levels vary considerably across different metropolitan regions of the country, as well as within these. While some of this variation can be explained by the socio-demographic composition of the municipal electorate, contextual conditions also play an important role. This paper has shown that the structure of the municipal newspaper market is one such contextual condition which has a significant effect on turnout levels in municipal elections. More precisely, effects were found for newspaper audience, as well as newspaper congruence. Both were found to be positively associated with levels of electoral turnout. The larger the share of newspaper readers within a municipality, and the higher municipal congruence of the newspaper market therein, the higher is the turnout in municipal elections. Robust effects were found, in particular, for newspaper congruence which we used to measure localization of the newspaper market. When newspapers read in a municipality contain locally relevant news, citizens are more likely to participate in local elections.

The study presented in this paper was the first to ever investigate the effect of newspaper markets on electoral turnout in Switzerland. It shows that variations of the local newspaper market are important to explain the differences in levels of turnout across municipalities in Swiss metropolitan areas. More generally, the findings of this study corroborate the proposition made in an increasing strand of literature that exposure to relevant information does indeed influence citizens' probability to vote and, thus, buttress the information model of voting. They point to the importance of the role of the mass media in the analysis of political participation. Media systems vary across time and space and can be assumed to influence politi-

⁶ A one percent increase in the adjusted r^2 from model 1 to model 3 (from 46.2 to 47.2 percent) might not seem very large. However, an empty model with merely the control dummy for location in the Italian language region already reveals an adjusted r^2 of 23.6 percent.

cal participation in a given territorial context in distinctive ways. Studying these influences can thus benefit our understanding of political participation more generally.

The insights provided by this study also point to media system prerequisites for political participation at the local level. In Switzerland, electoral turnout has been declining at all state levels. Today, turnout - at least at the national level - is one of the lowest among Western democracies. However, an active citizenry taking up the opportunities to participate politically is important to the functioning of democracy. Further research will have to show to what extent the decline of turnout at the local level in the last decades is related to transformations of the local media markets in the same period. For the present situation, however, the findings of this study suggest that current transformations of the Swiss newspaper markets present further threats to political participation at the local level. Concentration and consolidation is going on and many regional and local newspapers have disappeared. This is bad news for local news. Newspapers become fewer, their territorial scope increases and there will thus be less room for locally relevant news. This, in turn, is likely to have a negative impact on political participation.

But there is hope in this rather pessimistic outlook. Indeed, some of the major Swiss newspapers have recently started to use the possibilities of web-based publishing to increase the provision of news specifically for different territorial regions and localities. And there is anecdotal evidence that some news organisations deliberately seek to invest resources in order to strengthen their capacity to provide local news and stories, mainly in order to retain clients. Digital technologies, it seems, are increasingly used by news organisations to customize their products to territorially differentiated readerships. Hence, the shift of the public to using media online rather than reading hardcopies could, in turn, lead to a revival of locally relevant news and an activation of citizen participation at the local level.

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